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July 24, 1998

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OFFICE OF THE SECRETARY

Via Hand Delivery

Ms. Magalie Roman Salas
Secretary
Federal Communications Commission
1919 M Street, NW – Room 222
Washington, DC 20554

ICO Global Communications Services Inc.
Washington Office
1101 Connecticut Ave., NW
Suite 550
Washington DC 20036

Tel (202) 887-8111
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Re: EX PARTE
ET Docket No. 95-18

Dear Ms. Salas:

Larry Darby, Senior Advisor to CompassRose International, Inc., and the undersigned met July 21, 1998 with Commissioner Susan Ness; David Siddall, Legal Advisor to Commissioner Ness; and Daniel Connors, Attorney, Satellite Policy Branch, to discuss economic policy issues relating to the regulation of global satellite systems. Although the purpose of the meeting was not to discuss issues related to any particular proceeding, we have identified the above referenced docket to assist the Secretary in filing this letter.

Larry Darby discussed the economic impact of regulation generally on global satellite systems and presented the attached paper and outline on the same. I discussed the impact of regulation generally on global satellite systems and presented the attached letter on the same.

Two copies of this letter have been submitted to the Secretary of the Commission for inclusion in the public record, pursuant to Section 1.1206(b)(2) of the Commission's rules.

Very truly yours,

Francis D.R. Coleman
Director of Regulatory Affairs, North America
ICO Global Communications Services Inc.

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List ABCDE

Attachments
cc: Susan Ness
David Siddall
Daniel Connors
Larry Darby

July 16, 1998

The Honorable Susan Ness
Commissioner
Federal Communications Commission
1919 M Street NW
Room 844
Washington, DC 20544

ICO Global Communications
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Dear Susan Commissioner Ness:

It was good to see you again on Tuesday evening at the reception for Dr. Henry Chasia, Deputy Secretary-General of the ITU. As you suggested, I am sending you this note as a follow-up to our brief chat that evening on the subject of economic policy issues relating to the regulation of global satellite systems.

I mentioned to you that Larry Darby, Senior Advisor to CompassRose International Inc., has prepared a paper on this subject. His paper describes some of the economic aspects of global satellite systems, and how they differ fundamentally from national terrestrial wireless systems.

Larry Darby is an economic and financial consultant on issues relating to broadcasting, cable TV, domestic and foreign telephony, trade, technology, and regulation. He previously was a senior economist in the White House Office of Telecommunications Policy, FCC Chief Economist and Chief of the FCC's Common Carrier Bureau, and Vice President of Lehman Brothers' Telecommunications Investment Banking group.

You had indicated a possible interest in a further discussion of this subject prior to your travel abroad later next week. I would welcome such a discussion and suggest including Larry as well. I will be travelling this Friday afternoon and on Monday July 20, but we are both available on Tuesday or Wednesday, July 21 or 22.

I will call your office later today to see what would be convenient for you.

Yours sincerely,

Francis D.R. Coleman
Director of Regulatory Affairs, North America
ICO Global Communications Services Inc.

Talking Points for Commissioner Ness Meeting
Larry F. Darby – July 21, 1998

My perspective on satellites is from the point of view of an economist, a former "regulator" and an investment banker. My basic view is that technological forces drive and enable markets, while regulatory actions constrain and shape them. More specifically, in the global satellite sphere, FCC regulations can and do create, constrain and redistribute both costs and value in the market place while also setting precedents for other regulators worldwide. The result is that FCC regulations will influence costs and incentives for investors and, more generally, the outcome of both investment and competitive processes.

A. **Some Basic Satellite Market Economics**

1. Supply Side

   Threshold plant costs are large, fixed, sunk and irreversible

   Network and plant indivisibility

   a. lack of scalability

   b. "all or nothing" system investment

   Cost uncertainty – global spectrum costs

2. Demand Side

   User externalities – user value depends on number of users hooked up

   Revenue is "jointly" produced by users in different countries

   Uncertainty – licenses/operating partners in multiple jurisdictions

B. **Financial Implications**

Long market gestation and time to "break even"

Substantial operating leverage

Uncertain costs and revenues – cost and revenue structure mean market risk

"Asynchronous" cash flow – front loaded costs and deferred revenues

C. **Regulatory Implications**

Minimize delay

Minimize regulatory uncertainty

Minimize regulatory costs

Recognize "demonstration" effect of FCC actions on the rest of the world

D. **Conclusion**

Some of these characteristics may be present to a limited extent in domestic terrestrial systems, but are far more pervasive and intense in the case of global satellites. My conclusion is that the economic and world regulatory structure of this market is sufficiently different to warrant "special" regulatory treatment derived from recognition and analysis of the differences.

Economic Policy Issues Related to Global Satellites

Presentation to

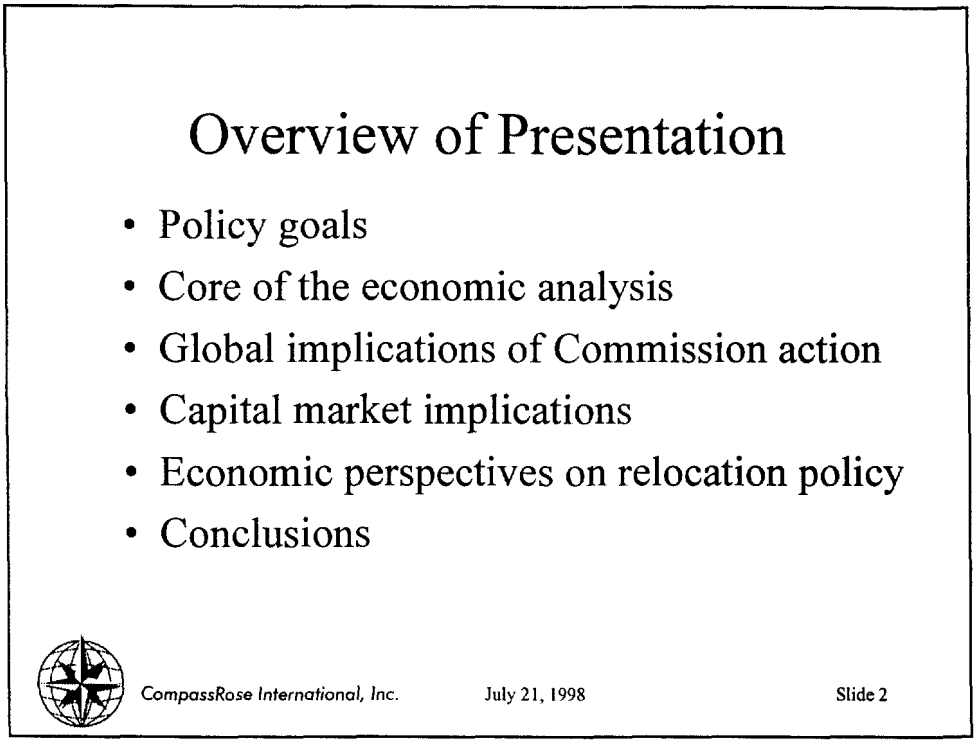
Federal Communications Commission

Larry F. Darby

Senior Advisor to CompassRose International, Inc.

July 21, 1998

Thank you for taking the time to allow me to discuss some economic issues growing out of global satellite proceedings currently before the Commission.



I will talk in the next few minutes about a) the implications in capital markets and for the ability of firms to raise risk capital and b) the broader global economic implications of the timing and content of still pending Commission decisions involving global satellite systems. I will begin with a statement of US goals that drive FCC policies toward global satellites and conclude: a) that any relocation costs imposed on such systems will be magnified globally, b) that the prospects of such costs will increase risk and the hamper ability of firms to access capital markets, c) that domestic terrestrial precedents with regard to relocation costs have very limited precedential value, and d) that the FCC's rules here may well discriminate against competitive carriers offering like services and will thereby bias consumer choice and undermine prospects for success in the marketplace.

To support those conclusions, I will review some key political economic features of global satellite systems that distinguish them from domestic, terrestrial systems the Commission deals with in the main.

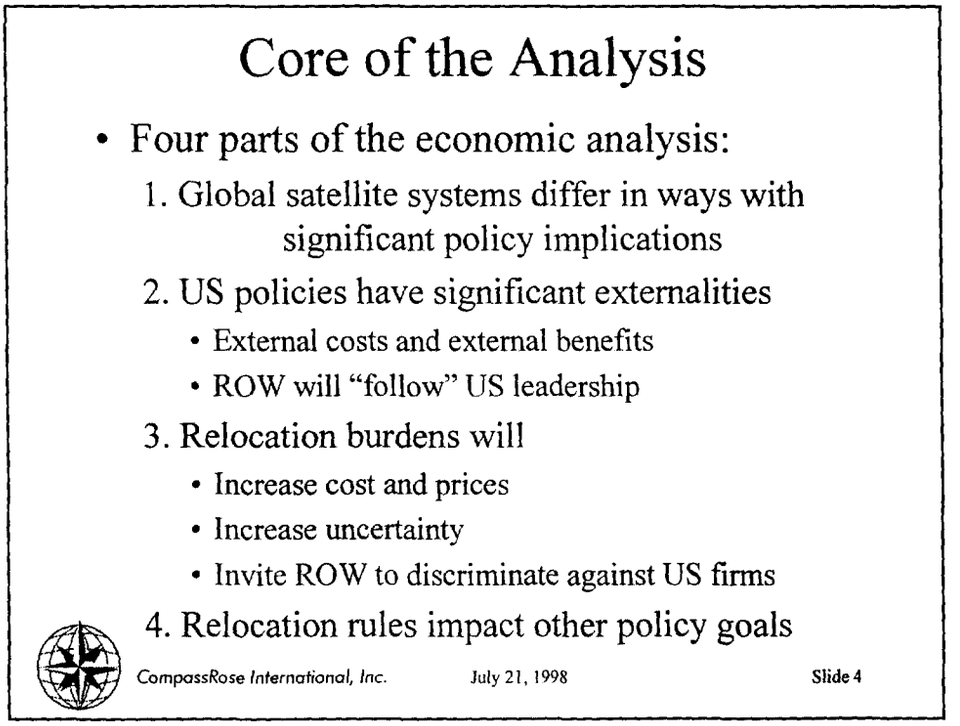
I have long been told, as you have, that satellites are different. I am here to discuss some of the particular ways they are different economically -- presence of externalities, large transactions costs, indivisible and irreversible sunk costs -- and ways they are different geopolitically. In particular, I want to emphasize the risk exposure of global systems to foreign discrimination by regulators favoring domestic champions or for other reasons.

The United States has for some time set forth and pursued affirmative policies for encouraging the development of satellite technology. First for military purposes, then for general communications purposes and more recently because construction of satellite systems and provision of services creates income, wealth and jobs for US firms and households, the US has promoted satellite technological development. US firms -- providing space and terrestrial hardware, launch activities, software, R&D, consulting, insurance and other associated outputs -- garner the lion's share of direct and stimulated economic activity from construction of global satellite systems. We have a distinct comparative advantage in this sector and our policy historically has been to leverage it.

The government has also pursued policies of encouraging competition -- unfettered competition with no favorites -- both as a means of directly serving the best interests of US consumers, but also as a means of encouraging open access to world markets by US satellite systems and other US terrestrial telecommunications firms as well.

US authorities have historically recognized the capital intensity of satellite systems and the fact that investment and innovation in such systems has direct effects, but also important spillovers into other sectors of the economy as well. The goal has been, with few departures in practice, to stimulate investment, encourage risk taking and create a climate congenial to innovation in this leading sector. US leadership in the commercialization of space has been one of the industrial success stories in the last quarter of the 20th century. The policies leading to that success have been clearly defined. And, they have worked.

While these goals have been been balanced with other public interest goals, they have not been sacrificed to other pursuits.



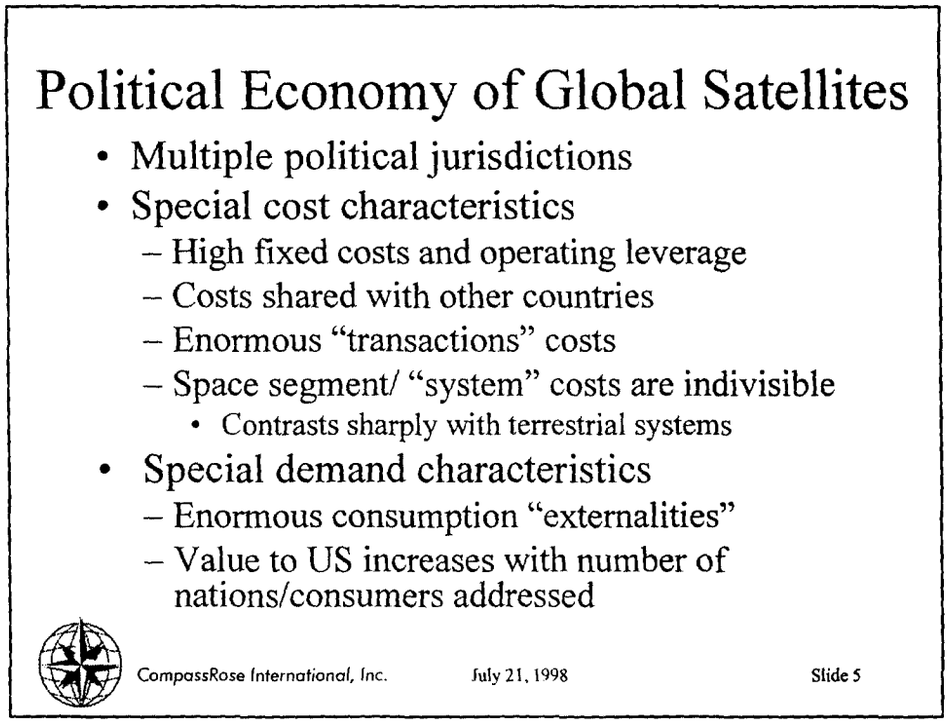
My analysis is derived in the main from four premises, which, taken together, provide a reasoned basis for evaluating the public's interest in these proceedings.

Satellites are different from terrestrial systems. Pardon me for stating what might seem obvious. And global systems are different from domestic ones. Pardon again. It is important to plumb the implications of the differences. They are not trivial. But I am getting ahead of myself.

What the FCC does in these proceedings will have "demonstration effects" abroad within countries that are looking for ways and rationales to finesse open market access; to generate revenue for domestic purposes; to discriminate against US firms; and/or to protect domestic favorites. The rest of the world will take direction from US initiatives, but will in all cases construe them in ways beyond US control and, perhaps, outside the bounds of US private and public interests.

This demonstration effect is especially important in the context of how the Commission regards the burdens of imposing relocation costs on satellite entrants. The immediate effect is to increase cost and uncertainty and prices -- all of which will ultimately be borne by consumers. While these effects are shared in common with outcomes in a purely terrestrial context, the major difference is that the rest of the world will be invited to use the precedent, and to apply it in ways that will discriminate against US firms. Differential treatment in the US of satellite carriers with non-US owners will be regarded in some jurisdictions as license to do likewise to US carriers.

Assignment of these relocation costs will look like a tax to the rest of the world. Moreover, its imposition on some, but not all, satellite carriers providing substitute services is at odds with the Commission's policies generally toward new competitive entrants. Assignment of relocation burdens may also discourage innovation and pursuit of new technologies -- satellite and otherwise -- if the precedent is replicated further here and abroad.



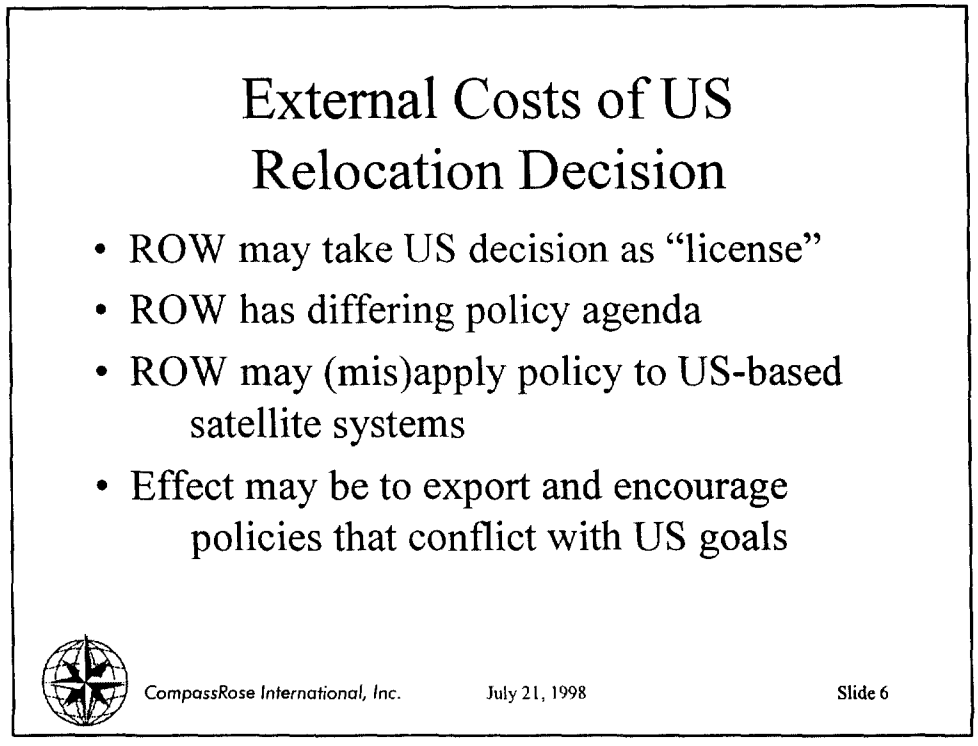
Consider the "political" and the "economic" differences of global satellites that matter to policy making. Regulation in multiple jurisdictions means that the US can influence, but not control, regulatory burdens imposed world wide on the system. This creates substantial uncertainty among investors who must anticipate countless regulatory determinations in all parts of the world. (The Commission has confronted this nightmare when faced by potential regulation of wireless networks by local governments.)

Satellites have economic differences, too. Costs tend to be largely "fixed" and "threshold" in nature; they are "sunk" and the assets cannot be converted to other uses; and they are shared with other countries. Cost sharing means that average costs decline when countries and subscribers connect to the system. To amortize, for example, an investment of $1 billion and pay back investors will require revenue of about $250 million annually, before earnings, taxes or even paying operating expenses. This "operating leverage"leads to a need for large numbers of countries/users to cover sunk costs and compensate investors for bearing risk.

Transaction costs of global systems are substantial parts of start-up costs. They arise when acquiring licenses and spectrum in other countries, in getting operating partners and establishing marketing and distribution channels. Relative to domestic systems, they are unique in kind and magnitude.

Unlike terrestrial systems which can be built out "market by market" while generating cash from existing plant to finance construction of future plant, satellite costs are often "indivisible"and "all or nothing". Global systems cannot be built a country or market at a time. The Commission has recognized the importance of permitting licensees to build out systems incrementally, as cash flow and demand conditions warrant, rather than requiring them to be constructed all at once. It considered but did not adopt a requirement that domestic PCS providers must commit to a full build out of all regional and local markets before offering service in any of them and without knowing what particular state and local costs might arise. Global satellite systems must, nevertheless, be substantially constructed in just that way. The space segment must be built all at once and before a single customer can be served or a cent of revenue collected and without knowledge of costs in numerous national jurisdictions.

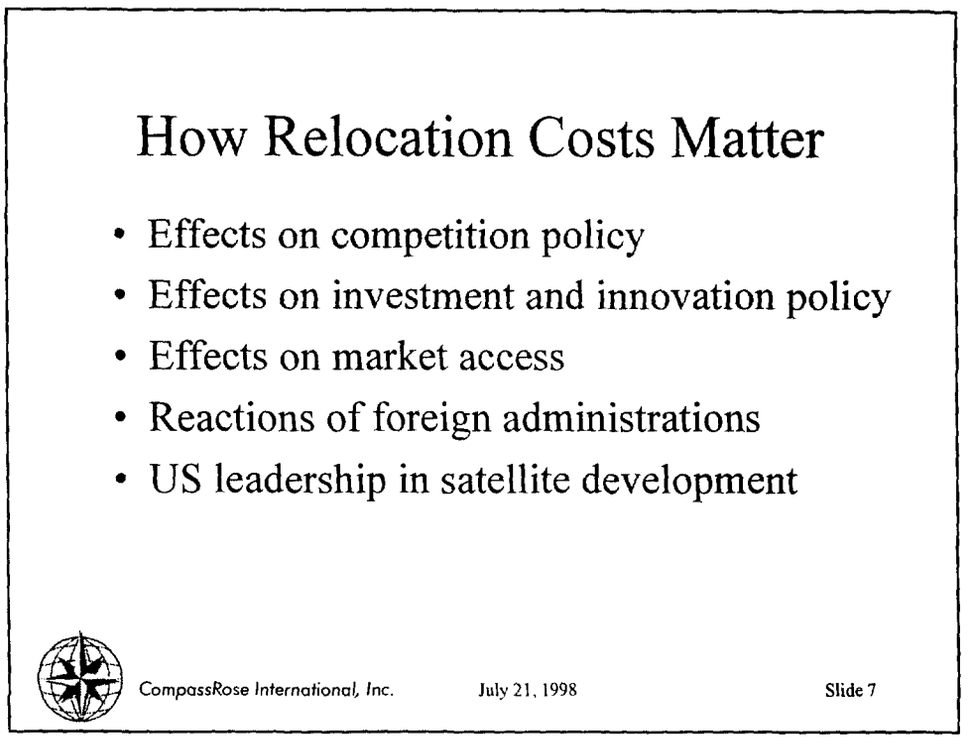
There are special demand characteristics as well. Economists refer to "consumption externalities" to characterize the sensitivity of economic welfare for US citizens of increasing the number of countries and consumers hooked to the network. Like a telephone system, more subscribers mean more system value.



I want to emphasize the notion of "externalities" here in the context of US decisions respecting relocation costs -- the costs to incumbents of making room for new technologies and applications . It is very important for the Commission to consider the external global costs -- not just domestic implications -- of any decision to impose costs on global satellite providers. Just as markets work only when the costs and benefits of decisions are borne by decision makers, world policy leadership can work only when all externalities are recognized. These externalities are important to markets and to world regulatory practices -- a fact made clear by the very existence of the ITU for example. So it is with domestic rulemakings impacting global satellite economics. Regulators in the rest of the world will, as they have in the past, use US precedents as a model. That has been and can be beneficial in some contexts. It can also be harmful, particularly if regulators in the rest of the world use US precedents to adopt policies inconsistent with US goals. This could happen in a variety of ways:

The rest of the world could use the US decisions as "license" to discriminate against US carriers. The rest of the world does not always share the US policy agenda and there is the danger that US precedents will be "misapplied" in pursuit of other national goals.

The effect may to to export bad policies -- bad in the sense that their application abroad undermines achievements of US goals -- like competition, open access, promotion of satellite technology and others.

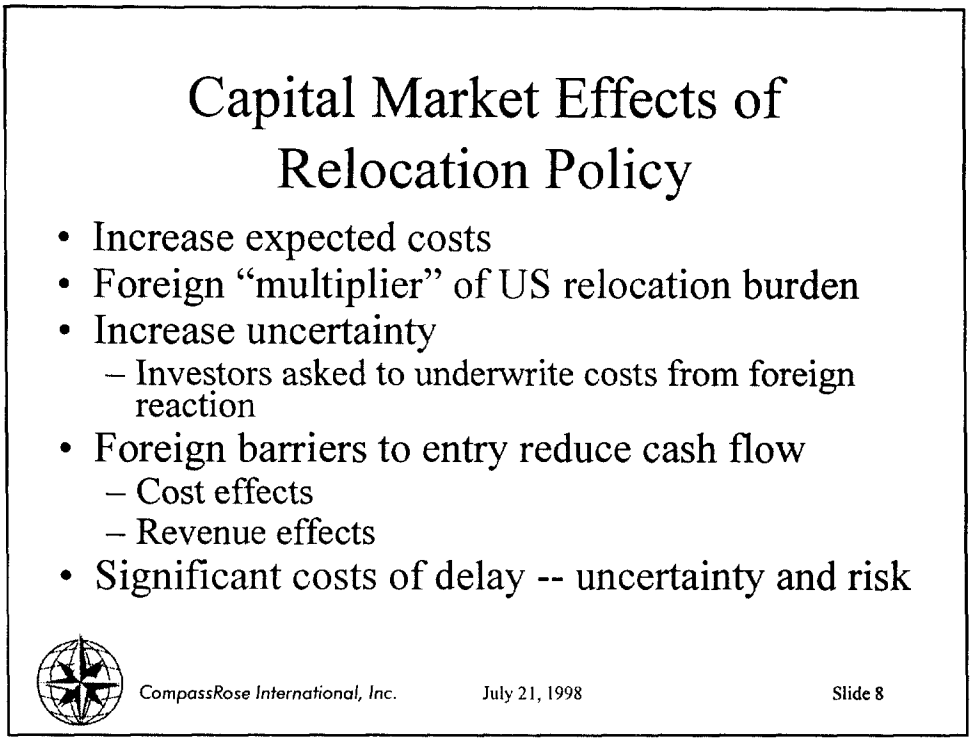


Taken in isolation, it has been argued that imposing relocation costs on satellite systems is in the best interest of the public. But, before the Commission acts on that assumption, it is important first to recognize the full range of implications of such a decision.

Imposing additional spectrum-related costs on some global satellite systems, but not others, will confer great advantage on competitive systems that are already licensed and have been previously spared the burden, here and abroad, of bearing spectrum-related costs. Differential treatment of competitors in the same market will be regarded as discriminatory and create an unfortunate precedent. This will be a marked departure from the Commission's efforts to "create level playing fields" for new entrants.

This impact on market access will spillover, no doubt, to proceedings in other countries and the foreign reaction, while not specifically predictable, is unlikely to be uniformly congenial to the interests of US carriers or otherwise to advance US policy interests.

The net effect of any relocation cost decision must fully reflect concerns in each of these areas. Immediate and obvious impacts must be considered in the context of distant and collateral ones. The long term potential negative effects on achieving US goals of satellite development should be of considerable concern. Satellites and companion undertakings are major contributors to US growth, technology leadership and macroeconomic welfare.

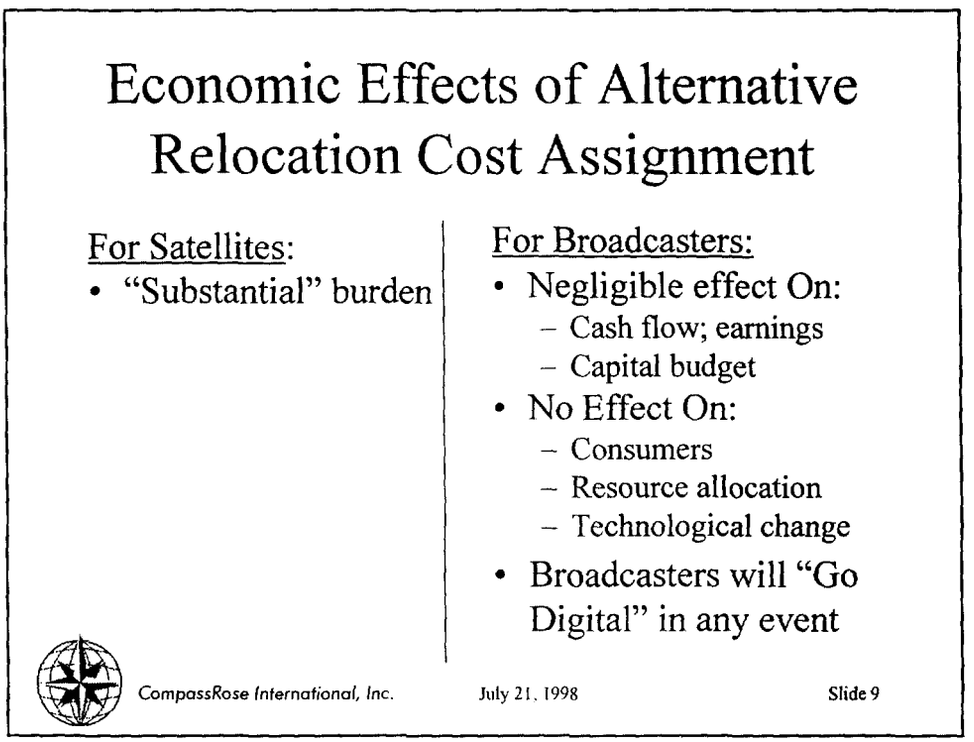


Let me turn now to a more specific set of concerns about relocation costs and how they matter -- in particular, how they matter to investors in this risky capital intensive undertaking.

A US decision to impose relocation costs may well be used by the rest of the world to impose a variety of "tariff-like" or "tax-like" charges on US carriers. This cost "multiplier" can increase US carrier costs indirectly by increasing uncertainty and risk, but also directly by increasing "transactions" costs. Foreign entry barriers that may be spawned by US decisions are of great concern to investors, who realize that they must reach as large a market as possible, at least cost, if they are to underwrite the considerable risk of the new venture. Such threats to cash flow and prospects for delay in US regulatory processes are a matter of acute concern and spirited analysis among investors and potential operating partners alike. Relocation costs translate to substantial additional costs per minute of customer use.

It is said that "Time is money". So it is here -- the costs of delay are compounded. All systems, but one, are go. The technology is there; the markets are there, we believe; but, regulatory uncertainty is a troubling source of unknown cost for investors.

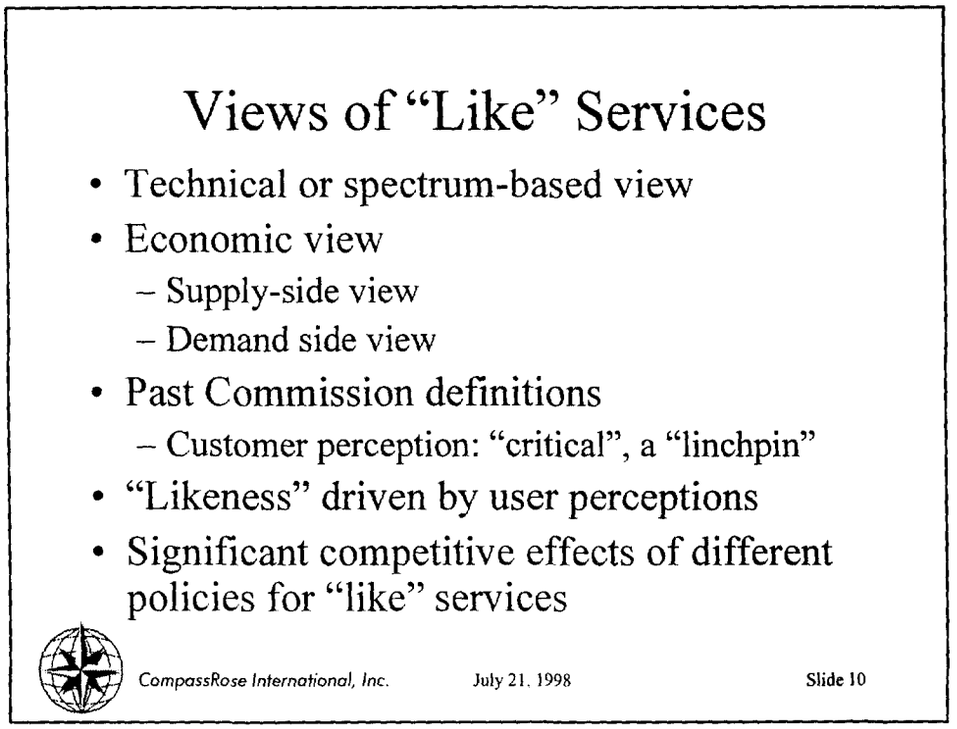
What is at stake here is not simply application of a recent precedent established in the PCS proceedings -- which I hasten to add represents an entirely different set of facts, so different as to be of little precedential value. (Recall earlier discussion of political and economic idiosyncrasies of global satellites.) The Commission's decision on relocation charges will have direct impacts not just in terms of "fairness" to incumbents, but will to greater or lesser degrees have negative effects on the Commission's commitment to encourage new technologies and applications; to reduce barriers to innovation; and to encourage investment and risk taking in both new technologies generally and in the satellite field more particularly.



I understand that what is being considered involves substantial payments to compensate broadcasters and others to relocate. As I have set forth earlier, such payments may be multiplied abroad to the detriment of a variety of US interests. It is instructive to ask what the public gets for this added cost and risk. So far as I have been able to determine -- and I want to emphasize that proponents of relocation have not put much in the way of specifics into the record -- but, so far as I can determine the effect of broadcaster-funded relocation could have negligible, almost undetectable, impacts on cash flow, on earnings, and on annual capital budget expenditures. While it is understandable for broadcasters to avoid where possible such costs, the fact is that they are almost inconsequential relative to current cash flow and earnings levels. Investors in the securities of publicly traded broadcast properties would properly regard the charges as "nonevents" -- a term used by analysts to depict matters of little financial or economic consequence.

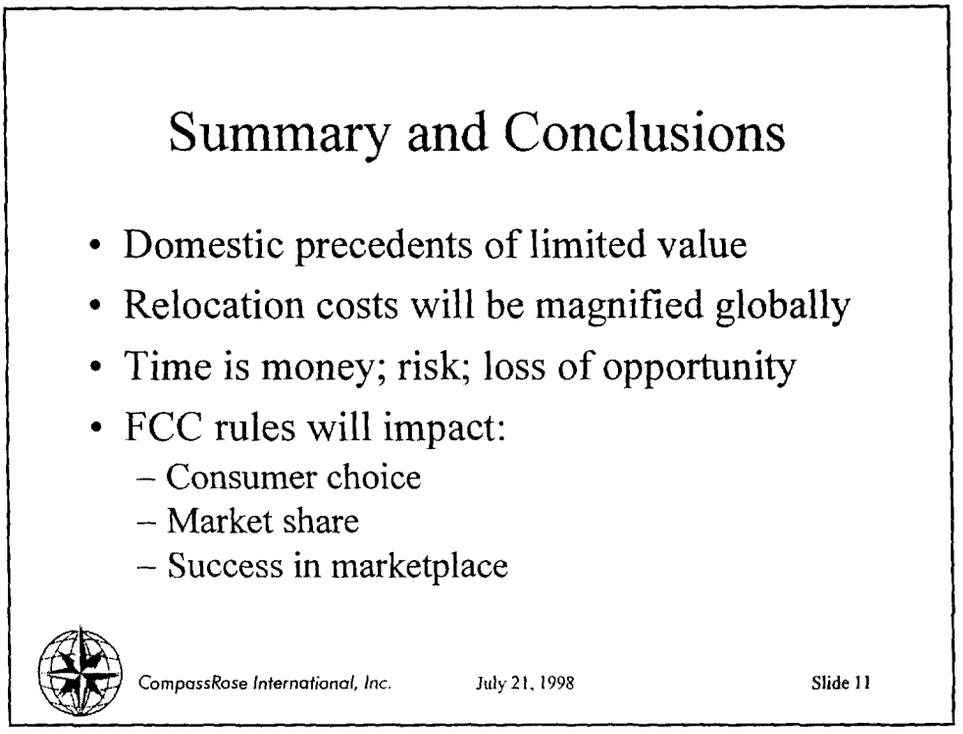
From a public interest point of view, my analysis indicates that directing broadcasters to pay their own relocation costs would have no detectable effect on consumers; no impact on overall resource allocation or capital committed to the sector, and no effect on the rate of technological change. Indeed, broadcasters will no doubt eventually -- and relatively soon -- be impelled to "GO DIGITAL" without regard to Commission imposed assistance from other sources.

In short, beyond claims of fairness -- which may be invoked by all parties -- there is little economic basis for shifting broadcaster relocation costs to new technologies. Doing so stimulates costs well beyond any benefits claimed.



I understand that there is some difference of view among parties, and perhaps staff, regarding what constitutes "like" services for purposes of determining equal regulatory treatment. One point of view is that services making use of the same spectrum or spectrum in the same "band" are like each other and unlike those produced outside the band. That technical or spectrum based view may be useful in some contexts, but I believe the correct perspective here is the "demand side" view, based on user perspectives, of what constitutes a like service. Both market analysis and Commission precedent support this view.

One fact is clear. Global systems that are direct competitors use spectrum in different bands. To claim that it is fitting either in a policy context, or in terms of basic fairness and lack of discrimination, to impose costs on some firms and not others, on grounds that they use different frequencies in different bands, is to create technical and political distinctions where there are no or inconsequential market differences. Several global satellite firms -- ICO, Iridium and Globalstar -- will compete vigorously in the market place and vie to satisfy similar, and in some cases identical, customer requirements. These companies will produce "like" services, when viewed by users or from past Commission perspectives (According to the Commission: Customer perception is critical; a linch pin of the determination of likeness.) There are significant potential competitive effects of imposing costs on one competitor that are forgiven for others. To rationalize such regulatory discrimination on the basis that the firms use different bands is to ignore the reality of the marketplace and the substitutability of truly "like" services.



To conclude quickly, I want to emphasize the limited value of precedents established in the context of terrestrial markets that are purely domestic. Global satellite systems involve very different political and economic considerations. Policies, like assignment of responsibility for bearing relocation costs, that have been successful in domestic, terrestrial contexts (like PCS) ought not to be extended without recognition and analysis of the complexities and idiosyncrasies of markets and politics of global satellites. Such costs will be magnified globally; but not in predictable amounts or time frames; and, with considerable additions to risk and uncertainty.

Relocation rules will have significant effects on consumers (who ultimately pay all regulatory costs); they will distort the market's determination of shares going to different competitors; and, in the long run they will have an important impact on success in the marketplace. These determinations should be left to the market and not unduly prejudiced by regulation.